

REMARKS

In the September 18, 2007 Office Action, the Examiner rejected Claims 2-3 and 5-7 as anticipated by Roberts. As explained in the aforementioned interview and in Applicant's previous filings, and as further explained below, Applicant respectfully submits that the rejection must be withdrawn.

Alternatively, and to the extent that the Examiner continues his apparent position that the "tense" of certain of Applicant's limitations render those limitations to be of "little patentable weight", Applicant also submits herewith proposed amendments to the tense of certain elements of claim 2, in the form of "new" claims 43-46. Applicant respectfully submits that those minor amendments (1) overcome any formal rejection that the Examiner may have, and (2) are allowable even after the Final Office Action, in that they do not require any additional searching by the Examiner. The changes from Claim 2's language (especially that of Claim 43) are simply intended to address the formal issues raised by the Examiner, to the extent those issues are understood by Applicant. For example, in Claim 43, Applicant has simply changed "deformed for receiving" to "deformable to receive", and "wherein the female structure includes" to "the female structure including".

However, and in the further alternative, to the extent that the Examiner believes that further searching would be required for those amendments in Claims 43-46, under the unusual circumstances of the present case, Applicant respectfully submits that the finality of the Office Action should be withdrawn, the amendments entered, and a further Office Action/Allowance issued by the Examiner.

The Examiner also rejected claims 35-42 under 35 USC 112, second paragraph, as being indefinite. To simplify the present request, Applicant is canceling herewith Claims 35-42, without prejudice to refile same at a later date.

As noted above, Applicant respectfully submits that the Examiner's rejection based on Roberts '626 must be withdrawn. Among other things, Roberts does not disclose or make obvious Applicant's claimed inventions. Rather than teaching anything to do with a joint formed in corrugated pipe, Roberts simply teaches to place corrugation outside of and over a conventional male/female pipe joint, with the intention that the corrugation protect the conventional joint from being crushed. Specifically, Roberts' corrugation "covers" its joint, but does not "form" any part of the joint. See, for example, Roberts '626, col. 1, l. 55-57 and col. 2, l. 65-66. Indeed, Roberts' drawings clearly show that its two outer corrugation cover pieces do not even engage each other (and therefore cannot form any "joint"). As stated in Applicant's previous filing, "the pipe joint of Roberts is formed by joining the bell fitting 13 at one end of a inner liner 10 with the spigot portion 14 at the other end of another inner liner 10."

In contrast, and among other things, Applicant's Claim 2 requires "a first female engagement structure formed from the sidewall corrugation pattern" and "a male engagement structure formed from the sidewall corrugation pattern". As indicated above, nothing in Roberts teaches or makes obvious ANY engagement of structures formed from the sidewall corrugation pattern. Roberts corrugations do not "engage" at all. They simply are positioned around the inner liner joint, to protect against crushing of the joint/pipe.

For the mutual convenience of Applicant and the Examiner, Applicant repeats here some of his previous remarks regarding the shortcomings of Roberts. Roberts' only apparent teaching of a

"corrugated" pipe is pipe 11. Those corrugations 11 have no "engagement" function at all. Instead, Roberts' corrugations 11 "slide over and provide crush resistance" to the actual joint/"engagement" of Roberts' patent (col. 1, l. 55-57; col. 2, l. 65-66). Thus, Roberts does NOT teach or suggest or otherwise make obvious Applicant's claimed "female engagement structure" formed from a sidewall corrugation pattern.

The same shortcomings exist in Roberts with respect to Applicant's claimed "male engagement structure formed from the sidewall corrugation pattern of the second piece of pipe." No such "male engagement structure" formed from sidewall corrugation is taught or made obvious by Roberts.

Roberts' shortcomings become even more clear in connection with other of Applicant's Claim 2 limitations: the first female structure not only has to (1) receive the male structure, but also (2) grip the male structure with sufficient compressive force to "prevent its inadvertent removal from engagement with the first female structure." As noted above, nothing in Roberts teaches or makes obvious ANY engagement of structures formed from sidewall corrugation patterns.

Instead, the teaching of Roberts (as stated in the abstract, for example) is for a "pipe structure [that] includes an outer corrugated pipe, *an inner smooth-walled liner*, and joining means including a bell fitting at one end of the *liner* extending beyond the outer corrugated pipe and a spigot fitting at the other end." Thus, Roberts' "joining means" (its ENGAGEMENT structures) are something OTHER than the corrugated pipe 11.

Specifically, Roberts teaches that two such pipes may be temporarily joined or sealed by using an O-ring seal 16 (Fig. 4; col. 3, l. 4-10), or may be permanently joined ("engaged" with

each other) by solvent welding seal 16 (Fig. 3; col. 3, l. 10-23). As indicated above, the pipe structure of Roberts is clearly defined as having an *inner liner pipe* and an outer corrugated pipe. As shown in Figure 3 of Roberts, the pipe joint of Roberts is formed by joining the bell fitting 13 at one end of a inner liner 10 with the spigot portion 14 at the other end of another inner liner 10. Thus, in comparing the present invention and Roberts, the Roberts joint method utilizes the pipe liner having a typical bell (male end) and spigot (female) to form a pipe joint by joining the opposite ends of the liner of two different pipes.

The bell fitting of Roberts, referred to in the industry as the female end, is formed as part of Roberts' inner liner (not Roberts' corrugations 11). The inner liner bell of Roberts is sized and shaped in a fixed configuration so that it overlaps the inner spigot of the adjacent adjoining inner liner pipe structure (rather than being sized and shaped to grip the adjacent pipe section).

In stark contrast to Roberts, the present invention teaches away from such a typical fixed configuration bell and spigot joint. The male and female members of the present invention are formed from the outer corrugated wall portion of the pipe structures. Roberts requires the inner liner wall pipe have a dedicated bell and spigot aspect to it, sized and shaped to fit over and slide into position to be "sealed" via an O-ring or welding sealant 16. Without that O-ring or welding sealant 16, Roberts' device would not even be "joined", at least not in any sealed manner.

Although sealant can be used with various embodiments of the present invention, embodiments of Claim 2 provide engagement between adjacent pipes, which engagement is not dependent upon some separate "sealant" element 16.

As indicated above, the Roberts corrugations of the outer pipe at the spigot end are undercut so as to slide over and provide crush resistance to the joint that is formed when the

spigot of one composite pipe section is inserted into and engaged with the bell of an adjacent composite pipe section. Roberts' corrugated portion 11 protects the inner liner bell and spigot joint. Clearly the corrugated pipe in Roberts is distinct, only protecting the joint formed by the bell and spigot of the inner liner.

Accordingly, Applicant respectfully submits that the claims 2-3 and 5-7 as pending (without any amendments) are allowable, and respectfully requests notice of same.

In view of the remarks set forth above, it is thought that the application is now in condition for allowance, notice whereof is respectfully requested of the Examiner.

If the Examiner has any questions regarding the foregoing, or if the Examiner would like to discuss any remaining or new issues regarding this communication, the Examiner is invited to contact the Applicant's representative at (949) 718-6750.

Respectfully submitted,

Date: November 19, 2007

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